

I. REMARKS

Claims 1-39 are all the claims pending in the present Office Action.

Claims 1-39 are rejected under 35 U. S.C. §103(a) as being unpatentable over Numata et al. (6,126,266) in view of Isayama et al. (4,245,224).

The Applicant traverse the rejection and requests reconsideration.

A. *Formal Matters*

As of now, two IDSs were filed in this case; the first filed on February 13, 2002, and the second filed on August 28, 2002. However, the Examiner has initialed, signed and returned a copy of only the second IDS filed on August 28, 2002. The Examiner is kindly requested to consider the IDS filed on February 13, 2002 and return an initialed and signed copy of the corresponding 1449 to the Applicant.

B. *Rejection of claims 1-39 under Section 103(a) based on Numata and Isayama*

Independent claim 1 requires a liquid discharging controller that can control the liquid discharging unit based on information about sedimentation-state of the liquid in the liquid chamber.

The Examiner admits that the primary reference Numata does not suggest such a liquid discharge controller that controls the liquid discharging unit based on the information about the sedimentation state of the liquid in the liquid chamber.

However, citing 1:10-15, the Examiner alleges that the secondary reference Isayama suggests that the longer a liquid container sits idle more sediments are contained in the container.

The Examiner is believed to be mischaracterizing the teachings of Isayama. The relevant passage from Isayama is reproduced below:

When the ink jet discharging head is left unused for a long time, sediments and solid - matters accumulate at the exit orifice of the head so that the normal jet of ink cannot be discharged, thus resulting in many problems...Isayama 1:12-15

As can be clearly seen, the above passage does not suggest anything about the sedimentation state of the liquid. At best, it suggests that sediments accrue in the exit of the nozzle after a long time. There is no teaching anywhere in Isayama about sedimentation in the liquid itself.

Therefore, notwithstanding the Examiner's contention to the contrary, the combined teachings of Numata/Isayama is deficient at least in the sense that detecting sedimentation state of the liquid chamber (as opposed to the exit) and controlling the liquid discharge based on the sedimentation state is not suggested.

In support of his position the Examiner further contends that it would have been obvious to determine the idle time of the sedimentation state in the liquid jetting apparatus of Numata, in order to allow for the normal operation of the liquid jetting device (Office Action 2:21-3:2). It is unclear what the Examiner exactly means by "idle time of the sedimentation state." If the Examiner means that detecting the time is equivalent to detecting the sedimentation state, the Examiner is requested to provide support for such a position. Because, presently the combined teachings of Numata/Isayama merely suggests that a time elapsed between the manufacturing

time and the present time [hereinafter “elapsed time] is determined and that sediments accumulate at the exit of the orifice.

A skilled artisan would not have been able to make the apparatus of claim 1 from the combined teachings of Numata/Isayama at least because their combined teachings do not suggest a liquid discharge controller that controls the liquid discharging unit based on the information about the sedimentation state of the liquid in the liquid chamber. Therefore claim 1 should be allowed.

Claims 2-16 are dependant on claim 1, and therefore, are allowable for the same reasons.

Likewise, independent claim 17 requires a sedimentation-state acquiring unit that can acquire information about sedimentation-state of the liquid in the liquid chamber. For reasons analogous to those discussed above in relation to claim 1, claim 17 is also allowable.

Claims 18-39 are dependant on claim 17, and therefore, are allowable for the same reasons.

II. CONCLUSION

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

17. (ONCE AMENDED) A liquid jetting apparatus comprising;

a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid and a storage that stores information about sedimentation-state of the liquid in the liquid chamber, the liquid including a sinkable constituent,
a head member having a nozzle,

a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle, and

a sedimentation-state acquiring unit that can acquire the information about sedimentation-state of the liquid in the liquid chamber from the storage unit,

wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgement of the sedimentation-state.

38. (ONCE AMENDED) A liquid jetting apparatus according to claim 17, wherein:

the liquid container further has a second liquid chamber that contains second liquid, the second liquid including a sinkable constituent,

the storage unit also stores information about sedimentation-state of the second liquid in the second liquid chamber,

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the head member further has a second nozzle,
the apparatus further comprises a second liquid way that can communicate with the
second liquid chamber of the liquid container set at the container-setting portion and the second
nozzle,

the sedimentation-state acquiring unit can also acquire the information about
sedimentation-state of the second liquid in the second liquid chamber from the storage unit, and
the information about the respective sedimentation-states of the liquid and the second
liquid in the liquid chamber and the second liquid chamber is information about a point of time
that is a standard for judgement of the sedimentation-states.